WEST

End of Result Set

Generate Collection

L6: Entry 4 of 4 File: USPT May 5, 1998

DOCUMENT-IDENTIFIER: US 5747293 A
TITLE: Intimin-like proteins of E. coli

BSPR:
The EPEC or EHEC gene product that mediates intimate attachment to epithelial cells is a protein called intimin (Int.sub.EPEC and Int.sub.EHEC respectively), which is a 94 kdal outer membrane protein encoded by the chromosomal eaeA gene. The amino-terminis of Int.sub.EPEC and Int.sub.EHEC have a high degree of homology with the eae gene products of Citrobacter freundii biotype 4280 (Int.sub.CF) and also with the amino terminus of invasin (Inv), the product of inv gene of Yersinia pseudotuberculosis (Inv.sub.YP) and Yersinia enterocolitica (Inv.sub.YE).

WEST

Generate Collection

L7: Entry 1 of 6 File: USPT Apr 17, 2001

DOCUMENT-IDENTIFIER: US 6218147 B1
TITLE: Haemophilus adhesin protein

DEPR:
The anti-adhesin antibodies of the invention were also effective to prevent the binding of enteropathic E. coli (EPEC) organisms to mammalian epithelial cells. These antibodies can be used therapeutically, for passive immunisation against diseases caused by EPEC.

DIALOG

```
RANK charge added; see HELP RATES 399.
  File 434:SciSearch(R) Cited Ref Sci  1974-1989/Dec
         (c) 1998 Inst for Sci Info
  File 442:AMA  Journals  1982-2001/Jul B3
         (c)2001 Amer Med Assn -FARS/DARS apply
*File 442: UDs have been adjusted to reflect the current months
data. See Help News442 for details. PY,PD sort temporarily do not work.
  File 444:New England Journal of Med.  1985-2001/Aug W1
         (c) 2001 Mass. Med. Soc.
  File 457:The Lancet  1986-2000/Oct W1
         (c) 2000 The Lancet, Ltd.
*File 457: Due to production changes at The Lancet, the updating of
this file is delayed.
  File 467:ExtraMED(tm)  2000/Dec
         (c) 2001 Informania Ltd.

      Set  Items  Description
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?ds

Set     Items   Description
S1     918052   (YERSINIA? OR CITROBACTER? OR EHEC? OR EPEC? OR O157? OR O-
              157? OR HAFNIA? OR COLI OR ESCHERICHIA?)/TI,DE
S2      38511   EAE OR EAEB OR INTIMIN? OR INVASIN? OR ((94 OR 95 OR 96 OR
              97) (3N) (KDA OR KD OR KILODALTON? OR DALTON? OR MW)) OR (ATT-
              ACH? (3N) EFFAC?)
S3       4750   S1 AND S2
S4       2611   S3/1997:2001
S5       2139   S3 NOT S4
S6        291   S5 AND (IMMUNE? OR PASSIVE? OR COLOST? OR MILK? OR TRANSFE-
              R? OR SIGA OR IGA OR IVIG OR IGIV)
?t s6/9/49 218 223 225 226 110 118 122 124 127 173 207 209 215 217 230 235 256
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 escherichia?)/ti,de
Processing
Processed  10 of  30 files ...
>>>Term "DE" is not defined in one or more files
Completed processing all files
          37889  YERSINIA?/TI,DE
          11609  CITROBACTER?/TI,DE
            668  EHEC?/TI,DE
            727  EPEC?/TI,DE
          12316  O157?/TI,DE
           1516  0157?/TI,DE
           2298  HAFNIA?/TI,DE
         872259  COLI/TI,DE
         840897  ESCHERICHIA?/TI,DE
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                 0157? OR HAFNIA? OR COLI OR ESCHERICHIA?)/TI,DE
?s eae or eaeb or intimin? or invasin? or ((94 or 95 or 96 or 97) (3n) (kda or kd or ki
lodalton? or dalton? or mw)) or (attach? (3n) effac?)
Processed  10 of  30 files ...
Processing
Completed processing all files
          16239  EAE
            166  EAEB
           1223  INTIMIN?
           1818  INVASIN?
         488934  94
        1056742  95
         562752  96
         463802  97
         444793  KDA
         173637  KD
          43901  KILODALTON?
          63065  DALTON?
         130180  MW
          18696  (((94 OR 95) OR 96) OR 97)(3N)((((KDA OR KD) OR
                 KILODALTON?) OR DALTON?) OR MW)
         488855  ATTACH?
           8268  EFFAC?
           2097  ATTACH?(3N)EFFAC?
      S2   38511  EAE OR EAEB OR INTIMIN? OR INVASIN? OR ((94 OR 95 OR 96
                 OR 97) (3N) (KDA OR KD OR KILODALTON? OR DALTON? OR MW))
                 OR (ATTACH? (3N) EFFAC?)
?s s1 and s2
         918052  S1
          38511  S2
      S3    4750  S1 AND S2
?s s3/1997:2001
>>>One or more prefixes are unsupported
>>>  or undefined in one or more files.
>>>Year ranges not supported in one or more files
Processed  10 of  30 files ...
Processing
Completed processing all files
           4699  S3
       22592851  PY=1997 : PY=2001
      S4    2611  S3/1997:2001
?s s3 not s4
           4750  S3
           2611  S4
      S5    2139  S3 NOT S4
?s
>>>Null command ignored
?ds
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Set     Items   Description
S1     918052   (YERSINIA? OR CITROBACTER? OR EHEC? OR EPEC? OR O157? OR 0-
             157? OR HAFNIA? OR COLI OR ESCHERICHIA?)/TI,DE
S2      38511   EAE OR EAEB OR INTIMIN? OR INVASIN? OR ((94 OR 95 OR 96 OR
             97) (3N) (KDA OR KD OR KILODALTON? OR DALTON? OR MW)) OR (ATT-
             ACH? (3N) EFFAC?)
S3       4750   S1 AND S2
S4       2611   S3/1997:2001
S5       2139   S3 NOT S4
?s s5 and (immune? or passive? or colost? or milk? or transfer? or siga or iga or ivig
or igiv)
Processed  10 of  30 files ...
```

WEST

Freeform Search

Database: US Patents Full-Text Database
US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Term: 110 and 0157.clm.

Display: 50 **Documents in Display Format:** KWIC **Starting with Number** 1

Generate: ○ Hit List ◉ Hit Count ○ Image

Search | Clear | Help | Logout | Interrupt

Main Menu | Show S Numbers | Edit S Numbers | Preferences

Search History

Today's Date: 8/8/2001

DB Name	Query	Hit Count	Set Name
USPT	('4141970'| '6218147')[PN]	2	L14
USPT	('6218147'| '4141970')[PN]	2	L13
USPT	l10 and 0157.clm.	1	L12
USPT	l10 and (yersinia or citrobacter or ehec or epec).clm.	0	L11
USPT	passiv$.clm. and (immun$ or vaccin$ or therap$ or treat$).clm.	894	L10
USPT	l8 not l7	51	L9
USPT	(yersinia or citrobacter or ehec or epec) same transfer	51	L8
USPT	(yersinia or citrobacter or ehec or epec) same passive	6	L7
USPT	invasin same intimin	4	L6
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USPT	l3 and l2	45	L4
USPT	(attach$ or adhesin or adhesion or eae or eaeb or intimin or invasin or ipa)	1182074	L3
USPT	(ehec or epec or o157$ or 0157$ or coli or enteropatho$ or enterohemo$ or hamberger$) and l1	72	L2
USPT	(mother or cow or lactat$ or sow or host or parent).clm. and (baby or infant or newborn or calf or piglet or patient).clm. and (antibod$ or immunglob$ or clostrum or milk$ or transfer$ or passive$).clm.	182	L1

WEST

Search Results - Record(s) 1 through 2 of 2 returned.

L14: Entry 1 of 2 File: USPT Apr 17, 2001

US-PAT-NO: 6218147
DOCUMENT-IDENTIFIER: US 6218147 B1

TITLE: Haemophilus adhesin protein
DATE-ISSUED: April 17, 2001

US-CL-CURRENT: 435/69.3; 424/256.1, 435/243, 435/252.3, 435/69.1, 435/71.1, 536/23.1, 536/23.7

INT-CL: [7] C12N 15/09

L14: Entry 2 of 2 File: USPT Feb 27, 1979

US-PAT-NO: 4141970
DOCUMENT-IDENTIFIER: US 4141970 A

TITLE: Method for enhancing the resistance of new born mammalian young to gastro-intestinal infections
DATE-ISSUED: February 27, 1979

US-CL-CURRENT: 424/282.1; 424/257.1

INT-CL: [2] A61K 39/02

Adherence of Vero cytotoxin-producing Escherichia coli of serotype O157:H7 to human epithelial cells in tissue culture: role of outer membranes as bacterial adhesins.

Sherman PM; Soni R

Department of Paediatrics, Hospital for Sick Children, University of Toronto, Ontario, Canada.

Journal of medical microbiology (ENGLAND) May 1988, 26 (1) p11-7, ISSN 0022-2615 Journal Code: J2N

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Escherichia coli of serotype O157:H7 are Vero cytotoxin-producing enteric pathogens that have recently been associated with outbreaks of haemorrhagic colitis, sporadic cases of haemorrhagic colitis and with the haemolytic uraemic syndrome. The organisms demonstrate **attaching** and **effacing** binding to the caecum and colon of orally infected gnotobiotic piglets, chickens and infant rabbits. E. coli O157:H7 cells adhere to the surface but do not invade the cytoplasm of human epithelial cell lines in tissue culture. Since outer membranes, lipopolysaccharides and flagella have been identified as bacterial adhesins on other enteric pathogens, we evaluated their roles in the binding of non-fimbriated E. coli O157:H7 to HEp-2 cells. Hyperimmune rabbit antisera were prepared to whole cells, outer membranes and flagella of E. coli O157:H7. The presence of antibody to homologous antigen was confirmed by dot blot immunoassays. Both antisera and purified outer membrane and flagellar antigens were co-incubated with bacteria and HEp-2 cells to quantitate inhibition of bacterial attachment. Adherence of E. coli O157:H7 to tissue culture cells was inhibited by rabbit antisera raised to whole cells (76.0 +/- 5.6% inhibition compared with bacterial adherence in the presence of pre-immune rabbit serum) and outer membranes (69.2 +/- 3.4% inhibition). In contrast, inhibition of bacterial attachment to tissue-culture cells was significantly less when two antisera to H7 flagella were co-incubated with E. coli O157:H7 and HEp-2 cells (12.4 +/- 7.6%; 6.0 +/- 3.5% inhibition). Outer-membrane extracts inhibited adherence to E. coli O157:H7 to HEp-2 cells in a concentration dependent manner whereas isolated flagella and lipopolysaccharide antigens did not inhibit bacterial attachment. (ABSTRACT TRUNCATED AT 250 WORDS)

Tags: Human; Support, Non-U.S. Gov't

Descriptors: *Bacterial Adhesion; *Cell Membrane--physiology--PH; *Escherichia coli--pathogenicity--PY; Bacterial Toxins--biosynthesis--BI; Cells, Cultured; Electrophoresis, Polyacrylamide Gel; Epithelium --microbiology--MI; Flagella--physiology--PH; **Immune Sera** ; Lipopolysaccharides--physiology--PH; Shiga-Like Toxin I

CAS Registry No.: 0 (Bacterial Toxins); 0 (Immune Sera); 0 (Lipopolysaccharides); 0 (Shiga-Like Toxin I)

Record Date Created: 19880630

?logoff hold

Inhibition of enteropathogenic Escherichia coli (EPEC) **adhesion to HeLa cells by human** colostrum: **Detection of specific** sIgA **related to** EPEC **outer-membrane proteins.**

AUTHOR: Camara Lilia M; Carbonare Solange B; Silva M Lourdes M; Carneiro-Sampaio Magda M S(a)
AUTHOR ADDRESS: (a)Dep. de Imunol., Inst. de Ciencias Biomedicas, 05508-900 Universidade de Sao Paulo, Sao Paulo**Brazil

JOURNAL: International Archives of Allergy and Immunology 103 (3):p307-310 1994
ISSN: 1018-2438
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Human **colostrum** and a high molecular weight **colostrum** fraction (HMWF; gt 14,000 D) prevented the adhesion of localized adherent (LA+) 0111:H-enteropathogenic Escherichia coli (EPEC) to HeLa cells. This effect was abolished after absorption with an O111:H-LA+ EPEC strain, but absorption with a LA- strain of same serotype had no effect on the process. A low molecular weight fraction (lt 14,000 D), absorbed or not with LA+ or LA- bacterial strains, did not inhibit the adherence of E. coli to HeLa cells. **IgA** -depleted **colostrum** had no inhibitory effect on bacterial adhesion, demonstrating the critical role of this protein in the phenomenon. Heat inactivation of whole **colostrum** did not significantly modify the inhibition adherence levels. Immunoblots of 0111: H- LA+ strain outer-membrane complex reacted with **colostrum** and HMWF showing that **IgA** antibodies were predominantly reactive with a **94 -kD** protein. These data confirm and extend observations about **colostrum sIgA** participation in adhesion inhibition of EPEC to HeLa cells and its response to a **94 -kD** outer-membrane protein.

Inhibition of localized adhesion of enteropathogenic Escherichia coli **to HEp-2 cells by immunoglobulin and oligosaccharide fractions of human** colostrum **and breast** milk.

Cravioto A; Tello A; Villafan H; Ruiz J; del Vedovo S; Neeser JR

Division of Microbiology, National Institute of Public Health, Cuernavaca, Mexico.

Journal of infectious diseases (UNITED STATES) Jun 1991, 163 (6) p1247-55, ISSN 0022-1899 Journal Code: IH3

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Secretory **IgA** (**sIgA**) purified from **colostrum** and breast **milk** obtained from 14 women inhibited the localized adherence of an enteropathogenic Escherichia coli (EPEC) to HEp-2 cells. Inhibition decreased as lactation continued even when the concentration of **sIgA** was maintained constant at 1 mg/ml. **sIgA** responded to a **94** - **kDa** plasmid-encoded outer membrane protein implicated as the EPEC adherence factor. An oligosaccharide-enriched fraction (OEF) from these samples also inhibited the attachment of this EPEC. Inhibition by OEFs decreased as lactation continued because of a general reduction in oligosaccharide content. Localized adherence of six other EPEC was also inhibited by **sIgA** and OEF, whereas attachment of isolates with diffuse or aggregative adherence was not inhibited by these fractions. Experiments with purified oligosaccharide fractions revealed that EPEC attach to HEp-2 cells through a carbohydrate-mediated mechanism based on the preferential recognition of fucosylated residues in human **milk** .

Tags: Female; Human; Support, Non-U.S. Gov't

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         (c) 2001 BIOSIS
  File  34:SciSearch(R) Cited Ref Sci  1990-2001/Aug W1
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  File  35:Dissertation Abs Online  1861-2001/Jul
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*File  65: For variance in UDs please see Help News65.
  File  71:ELSEVIER BIOBASE  1994-2001/Aug W1
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*File  73: For information about Explode feature please
see Help News73.
  File  77:Conference Papers Index  1973-2001/Jul
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  File  98:General Sci Abs/Full-Text  1984-2001/Jun
         (c) 2001 The HW Wilson Co.
  File 144:Pascal  1973-2001/Aug W1
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  File 149:TGG Health&Wellness DB(SM)  1976-2001/Jul W5
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  File 155:MEDLINE(R)  1966-2001/Aug W4
  File 156:Toxline(R)  1965-2000/Dec
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*File 156: This file is closed (no updates). For toxicology search
strategy and changes to the file please see Help News156.
  File 157:Aidsline(R)  1980-2000/Dec
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*File 157: Final updates for this file have been loaded and the
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  File 159:Cancerlit  1975-2001/Jun
         (c) format only 2001 Dialog Corporation
*File 159: This file has been reloaded. Accession Numbers have changed.
  File 162:CAB HEALTH  1983-2001/Jun
         (c) 2001 CAB INTERNATIONAL
*File 162: Truncating CC codes is recommended for full retrieval.
See Help News162 for details.
  File 164:Allied & Complementary Medicine  1984-2001/Aug
         (c) 2001 BLHCIS
  File 172:EMBASE Alert  2001/Aug W1
         (c) 2001 Elsevier Science B.V.
  File 266:FEDRIP  2001/Jul
         Comp & dist by NTIS, Intl Copyright All Rights Res
  File 369:New Scientist  1994-2001/Jul W3
         (c) 2001 Reed Business Information Ltd.
  File 370:Science  1996-1999/Jul W3
         (c) 1999 AAAS
*File 370: This file is closed (no updates). Use File 47 for more current
information.
  File 399:CA SEARCH(R)  1967-2001/UD=13506
         (c) 2001 AMERICAN CHEMICAL SOCIETY
*File 399: Use is subject to the terms of your user/customer agreement.
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Immunization with live aroA recombinant Salmonella typhimurium producing invasin inhibits intestinal translocation of Yersinia pseudotuberculosis.

Simonet M; Fortineau N; Beretti JL; Berche P

Laboratoire de Microbiologie, INSERM U411, Faculte de Medecine Necker-Enfants Malades, Paris, France.

Infection and immunity (UNITED STATES) Mar 1994, 62 (3) p863-7, ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The Yersinia pseudotuberculosis inv gene encodes **invasin** , a 103-kDa outer membrane protein that allows bacteria to enter mammalian cells. The gene was subcloned into the attenuated aroA mutant of Salmonella typhimurium SL3261. **Invasin** was produced by the recombinant Salmonella strain and increased the ability of microorganisms to translocate from the intestinal lumen to the mesenteric lymph nodes. Specific antibodies for **invasin** were detected in sera and intestinal secretions of mice following oral immunization with the live Inv+ Salmonella strain. The immunization strongly inhibited intestinal translocation of Y. pseudotuberculosis when this pathogen was inoculated to mice but failed to prevent Yersinia dissemination from the gut lymphoid tissue.

Tags: Animal; Female; Support, Non-U.S. Gov't

Expression and characterization of the eaeA gene product of Escherichia coli **serotype** O157:**H7**.

Louie M; de Azavedo JC; Handelsman MY; Clark CG; Ally B; Dytoc M; Sherman P; Brunton J

Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, Ontario, Canada.

Infection and immunity (UNITED STATES) Oct 1993, 61 (10) p4085-92, ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

In enteropathogenic Escherichia coli, the eaeA gene produces a **94 -kDa** outer membrane protein called **intimin** which has been shown to be necessary but not sufficient to produce the **attaching** -and-**effacing** lesion. The purpose of this study was to characterize the **intimin** specified by the eaeA allele of the enterohemorrhagic E. coli (EHEC) serotype O157:H7 strain CL8 and to determine its role in adherence. The carboxyl-terminal 266 amino acids of the CL8 **intimin** were expressed as a protein fusion with glutathione S-**transferase** , which was used to raise antiserum in rabbits. The antiserum reacted in Western immunoblots with a **97 - kDa** outer membrane protein of EHEC strains of serogroups O5, O26, O111, and O157 and enteropathogenic E. coli strains of serogroups O55 and O127. Surface labelling of CL8 with 125I showed that **intimin** was surface exposed. An eaeA insertional inactivation mutant of CL8 was produced and was designated CL8-KO1. Total adherence of CL8-KO1 to HEp-2 cells was not significantly different from that of CL8, but CL8-KO1 gave a negative result in the fluorescent actin staining test. The eaeA gene expressed alone in E. coli HB101 also gave a negative fluorescent actin staining test result. The eaeA gene of CL8 was able to complement the eaeA deletion mutation in CVD206. We conclude that the product of the EHEC eaeA gene is a **97 - kDa** surface-exposed protein and propose that it be designated **intiminO157** . Sherman et al. described a **94 -kDa** outer membrane protein which played an important role in adherence of E. coli O157:H7 (Infect. Immun. 59:890-899, 1991). Western immunoblotting and indirect fluorescent antibody studies showed that the protein described by Sherman et al. is not **intimin** .

le: **IDENTIFICATION OF EAEA PROTEIN IN THE OUTER-MEMBRANE OF** ATTACHING **AND** EFFACING ESCHERICHIA- COLI **O45 FROM PIGS**

Author(s): ZHU CR; HAREL J; DUMAS F; FAIRBROTHER JM
Corporate Source: UNIV MONTREAL,FAC VET MED,RECH MALAD INFECT PORC GRP,CP 5000/ST HYACINTHE/PQ J2S 7C6/CANADA/; UNIV MONTREAL,FAC VET MED,RECH MALAD INFECT PORC GRP/ST HYACINTHE/PQ J2S 7C6/CANADA/; NATL RES COUNCIL CANADA,BIOTECHNOL RES INST/MONTREAL/PQ H4P 2R2/CANADA/
Journal: FEMS MICROBIOLOGY LETTERS, 1995, V129, N2-3 (JUN 15), P237-242
ISSN: 0378-1097
Language: ENGLISH Document Type: ARTICLE
Geographic Location: CANADA
Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences
Journal Subject Category: MICROBIOLOGY
Abstract: We have previously reported that the production of **attaching** and **effacing** lesions by Escherichia coli 045 isolates from pigs is associated with the eaeA (E. coli **attaching** and **effacing**) gene. In the present study, expression of the EaeA protein, the eaeA gene product, among swine 045 E. coli isolates was examined. The majority (20/22) of **attaching** and **effacing** positive, eaeA(+) E. coli 045 isolates, but none of ten **attaching** and **effacing** negative, eaeA(-) or eaeA(+) isolates, expressed a **97 -kDa** outer membrane protein as revealed by sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) and Western blot analysis. Amino-terminal amino acid sequencing demonstrated a high homology between this **97 -kDa** protein of swine E. coli 045 and the EaeA protein (**intimin**) of human enteropathogenic E. coli and enterohemorrhagic E. coli. In addition, a serological relationship between the EaeA proteins of swine 045, rabbit (RDEC-1) and human (E2348/69) **attaching** and **effacing** E. coli strains was observed. Our results indicate an association between expression of the EaeA protein and attaching and efficacing activity among 045 E. coli isolates. The data also suggest an antigenic relatedness of the EaeA proteins of swine, rabbit, and human **attaching** and **effacing** E. coli.

tle: **IMMUNOCOMPROMISE IN GNOTOBIOTIC PIGS INDUCED BY VEROTOXIN-PRODUCING ESCHERICHIA- COLI (O111 NM)**

Author(s): CHRISTOPHERHENNINGS J; WILLGOHS JA; FRANCIS DH; RAMAN UAK; MOXLEY RA; HURLEY DJ

Corporate Source: S DAKOTA STATE UNIV,DEPT VET SCI/BROOKINGS//SD/57007; S DAKOTA STATE UNIV,DEPT VET SCI/BROOKINGS//SD/57007; S DAKOTA STATE UNIV,DEPT BIOL MICROBIOL/BROOKINGS//SD/57007; UNIV NEBRASKA,DEPT VET SCI/LINCOLN//NE/68588

Journal: INFECTION AND IMMUNITY, 1993, V61, N6 (JUN), P2304-2308

ISSN: 0019-9567

Language: ENGLISH Document Type: ARTICLE

Geographic Location: USA

Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences

Journal Subject Category: IMMUNOLOGY; INFECTIOUS DISEASES

Abstract: A verotoxin-producing Escherichia coli serotype O111:NM strain (strain 10049; verotoxin 1 positive) persistently infected experimentally inoculated gnotobiotic pigs, causing **attaching - effacing** intestinal lesions and chronic diarrhea. Experiments were performed to determine whether persistent infection might be associated with immunocompromise of the host by this organism. Pigs inoculated with this strain had a significant reduction in peripheral blood lymphocytes and lower antibody titers to sheep erythrocytes compared with control pigs. Compared with pigs given a verotoxin-negative pathogenic strain of the same serotype (O111:NM, strain 2430), pigs inoculated with the verotoxin-positive strain had lower peripheral lymphocyte counts and proliferative responses to concanavalin A, phytohemagglutinin, and pokeweed mitogens. The results of this study suggest that strain 10049 has an immunocompromising effect on gnotobiotic pigs.

Title: INTERACTIONS BETWEEN YERSINIA-ENTEROCOLITICA AND THE HOST WITH SPECIAL REFERENCE TO VIRULENCE PLASMID ENCODED ADHESION AND HUMORAL IMMUNITY

Author(s): PAERREGAARD A
Corporate Source: HOJBJERG VANG 54/DK-2840 HOLTE//DENMARK/; RIGSHOSP,STATENS SERUMINST,DEPT CLIN MICROBIOL/DK-2100 COPENHAGEN//DENMARK/

Journal: DANISH MEDICAL BULLETIN, 1992, V39, N2 (APR), P155-172
Language: ENGLISH Document Type: REVIEW
Geographic Location: DENMARK
Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences; CC CLIN--Current Contents, Clinical Medicine
Journal Subject Category: MEDICINE, GENERAL & INTERNAL
Identifiers--KeyWords Plus: LINKED-IMMUNOSORBENT-ASSAY; TRIGGERED REACTIVE ARTHRITIS; TOXIGENIC ESCHERICHIA-COLI; MOUSE LARGE-INTESTINE; PSEUDOTUBERCULOSIS **INVASIN** PROTEIN; BORDER MEMBRANE-VESICLES; CULTURED MAMMALIAN-CELLS; **IGA** -ANTIBODIES; ENTEROPATHOGENIC YERSINIA; MONOCLONAL-ANTIBODIES
Research Fronts: 90-0569 004 (INFLAMMATORY BOWEL-DISEASE; COLON CANCER SURVEILLANCE; BARRETTS MUCOSA)
90-0157 001 (SURFACE FREE-ENERGY; CONTACT ANGLES; BACTERIAL ADHESION; INTERFACE OF 2 IMMISCIBLE LIQUIDS; MICELLE FORMATION; LINE TENSION; RED-BLOOD-CELL AGGREGATION)
90-0377 001 (REACTIVE ARTHRITIS; INFLAMMATORY RHEUMATIC DISEASES; HLA-B27 IN SPONDYLOARTHROPATHIES; MOLECULAR MIMICRY)
90-0623 001 (FECAL GIARDIA ANTIGENS; EPIDEMIOLOGY OF FOODBORNE DISEASE; AXENIC CULTURE; TRANSFUSION-ASSOCIATED YERSINIA-ENTEROCOLITICA; STRING TEST; CAPTURE ELISA)
90-2111 001 (BACTERIAL ADHERENCE; ESCHERICHIA-COLI TYPE-1 FIMBRIAE; HUMAN CLINICAL ISOLATES; INVITRO ADHESION)

Attaching and effacing activities of rabbit and human enteropathogenic Escherichia coli in pig and rabbit intestines

Moon H.W.; Whipp S.C.; Argenzio R.A.; et al.
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Three strains of enteropathic Escherichia coli (EPEC), originally isolated from humans and previously shown to cause diarrhea in human volunteers by unknown mechanisms, and one rabbit EPEC strain were shown to attach intimately to and efface microvilli and cytoplasm from intestinal epithelial cells in both the pig and rabbit intestine. The attaching and effacing activities of these EPEC were demonstrable by light microscopic examination of routine histological sections and by transmission electron microscopy. It was suggested that intact colostrum -deprived newborn pigs and ligated intestinal loops in pigs and rabbits may be useful systems to detect EPEC that have attaching and effacing activities and for studying the pathogenesis of such infections. The lesions (attachment and effacement) produced by EPEC in these systems were multifocal, with considerable animal-to-animal variation in response to the same strain of EPEC. The EPEC strains also varied in the frequency and extent of lesion production. For example, three human EPEC strains usually caused extensive lesions in rabbit intestinal loops, whereas two other human EPEC strains usually did not produce lesions in this system.